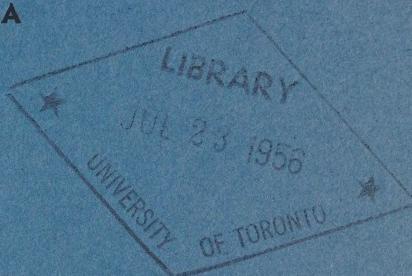


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DIRECTORY OF ORGANIZATION

ACTIVITIES

CANADA DEPARTMENT OF AGRICULTURE

PUBLISHED BY AUTHORITY OF

THE RT. HON. JAMES G. GARDINER, MINISTER OF AGRICULTURE
OTTAWA, CANADA

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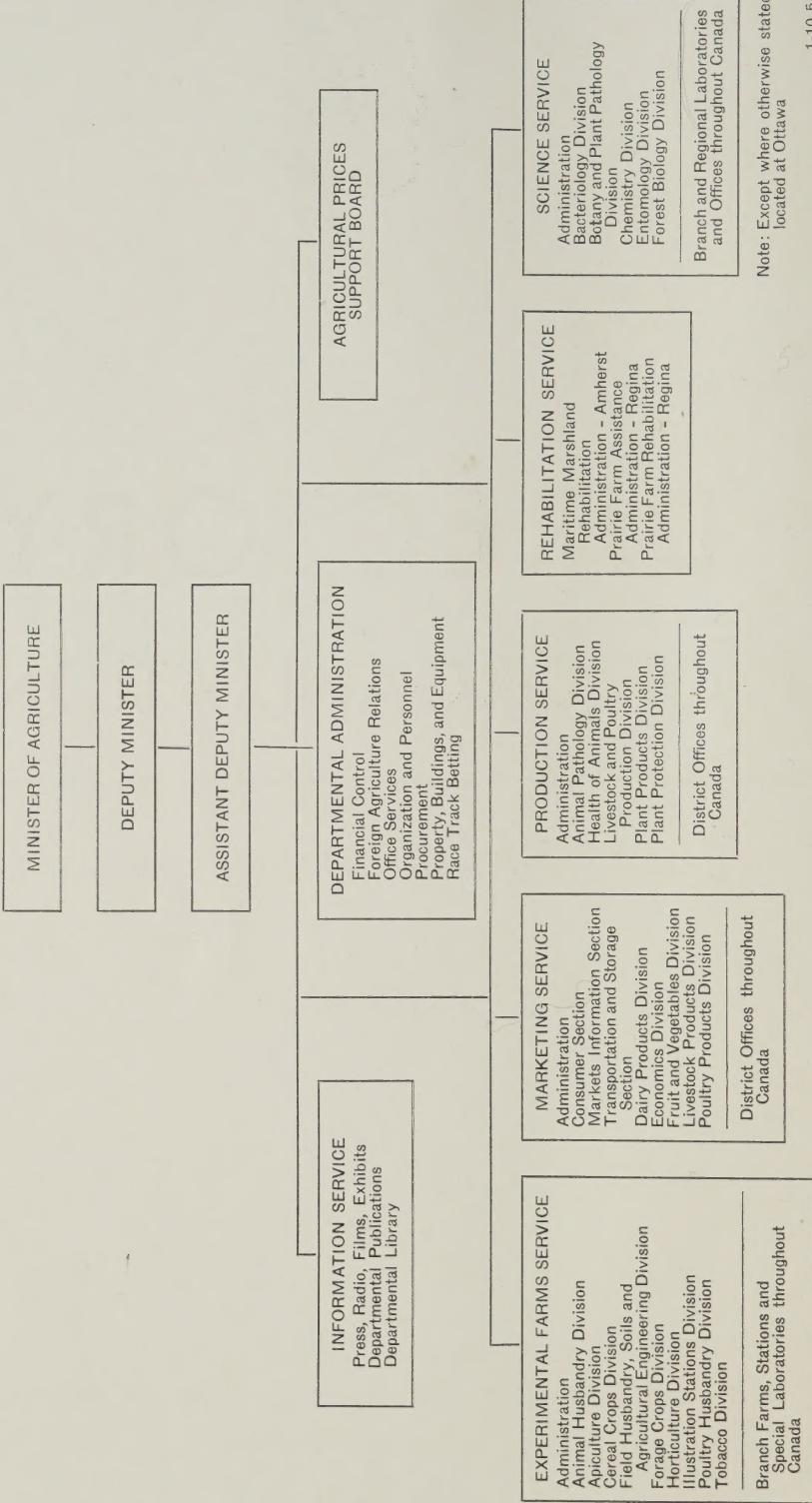
CANADA

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CANADA DEPARTMENT OF AGRICULTURE

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OTTAWA, CANADA

CANADA DEPARTMENT OF AGRICULTURE



Note: Except where otherwise stated
located at Ottawa

INTRODUCTION

The Canada Department of Agriculture dates from Confederation. With Hon. J. C. Chapais as its Minister, the Department was established in 1867.

Long before that, however, the Government of Canada had assisted farmers. Since early in the 17th century, aid to farmers was provided directly as well as through agricultural societies. The first agricultural legislation was passed in 1790, the first agricultural committee of the Legislature was formed in 1816 "to encourage agriculture", and the first inspection laws (concerning beef and pork) were passed in 1840.

But Canada's initial concrete move to organize for the promotion of agriculture took place in 1852. On November 10, of that year, an Act of the Legislature of the Province of Canada set up a Bureau of Agriculture under Malcolm Cameron of Three Rivers, Que., (who was also founder of the Perth, Ont., "Courier"), as Minister. This Bureau was the forerunner of the present department.

Definite Action

The new Department's early months were taken up with organization, so it was not until 1869 that active work was begun. In that year, an Act designed to protect Canadian livestock from contagious diseases was passed. By 1884 inspection and quarantine stations were established along the international boundary and at Atlantic seaports, and attention was being given to eradicating diseases already in the country. Also in 1884 the first entomologist was appointed to investigate the ravages of crop-destroying insects.

The next year, preliminary steps were taken to set up the experimental farms system and, in 1886, Parliament passed an Act providing for a central farm at Ottawa and four branch farms across the country.

Up to that time, the Department of Agriculture comprised only two branches—Veterinary and Experimental Farms. In 1890 the first Dairy Commissioner was appointed, followed by the enactment of the Dairy Products Act. Appointments of officials and the passing of various Acts and regulations came regularly after that. Following World War I, marked progress was made in the improvement of agriculture and the development of production and marketing policies and that post-war era saw the birth of many of today's policies covering the grading of farm products.

The Department moved to the relief of prairie agriculture in 1935, passing the Prairie Farm Rehabilitation Act which, because of its valuable effects in changing the farm patterns of the West, has been retained and extended. For the relief of farmers in crop-failure districts, the Prairie Farm Assistance Act was passed in 1939 to provide direct money payments under defined circumstances.

Reorganization

The present organization of the Department is based on an arrangement brought about in 1937 on the principle of bringing under one administration all government activities aimed at agricultural development—experimental and scientific investigations in connection with production, marketing,

rehabilitation and assistance. The reorganization established four basic Services and reassembled eight of the previous nine branches under them, leaving the ninth, Publicity and Extension (later re-formed into Information Service), directly under the supervision of the Deputy Minister.

World War II brought many changes to Canadian agriculture and the activities of the Department to meet the food needs of Canada and her allies, the loss of export markets and maladjustments in marketing within agriculture and between agriculture and the rest of the economy. In 1944, the Agricultural Price Support Act was passed to "endeavour to ensure adequate and stable returns for agricultural products during the transition from war to peace and to endeavour to secure a fair relationship between the returns from agriculture and those from other occupations," and thus compensate for the controls on prices during the war.

The Maritime Marshland Rehabilitation Act of 1948 provided for the reclamation of new areas of tidal marshes in the Maritime Provinces and the reconstruction and repair of existing works. These and other activities have brought the Department of Agriculture to its present important place in Canada's economy.

Review

Originally the Bureau of Agriculture and later the Department of Agriculture was responsible for agricultural statistics, registration (including census), patents and inventions, immigration and the construction of colonization roads. These were subsequently assigned elsewhere.

Increasing demands for governmental recognition resulted in sound policies for the development and regulation of Canadian Agriculture. Drought and depression in the 1930's considerably altered cultural practices over a large part of the nation. War imposed new strains on the economy but paved the way for lasting advances in production. In the post-war period, Canadian agriculture broke new ground in the fields of planned production and marketing.

ADMINISTRATION

Minister

As in all departments of government, the organization of the Canada Department of Agriculture assumes pyramid form. At the apex stands the Minister. As the executive head and highest authority in the Department the Minister is responsible for the initiation and execution of laws and orders relating to agriculture. He reports annually to the Governor General and is responsible to Parliament for all activities of the Department. The Minister is provided with a Parliamentary Assistant and a small personal staff. Through the Deputy Minister, the entire resources of the Department are at his disposal when required.

Deputy Minister

The Deputy Minister as the administrative head is immediately under the Minister and is responsible to him for every aspect of the Department's operations. Immediately under the Deputy Minister are an Assistant Deputy Minister and the Directors of Services, each responsible to the Deputy Minister for a defined portion of the Department's work.

Assistant Deputy Minister

In addition to his main function of assisting the Deputy Minister with the over-all direction of the activities of the Department, the Assistant Deputy Minister is also responsible for the general business administration of the Department to ensure efficiency and economy.

Administrative Services

Departmental policies and procedures in administrative matters within the requirements for the government service generally are determined after carefully considering the needs of the Services as presented by their Directors. Within the framework of established policies and procedures, responsibility for day-to-day business administration is delegated as completely as possible to the Directors, Divisional Chiefs, and local Officers-in-Charge, and staff is provided at various administrative levels to assist in this work.

The necessary servicing of a departmental staff of between 8,000 and 9,000 employees and administering an appropriation of more than \$75,000,000 requires also a central administrative organization to exercise functional control and co-ordination. The functions of the five offices provided for this purpose are listed in the following paragraphs together with the functions of the Foreign Agricultural Relations Office and the Race Track Betting Supervision Office, included under Administrative Services.

Financial Control Office

This office is responsible for financial administration practices. It reviews expenditure requisitions requiring approval by the Assistant Deputy Minister, Deputy Minister, or Minister, and acts as liaison between the Department and other agencies in financial matters. It interprets regulations regarding financial administration and recommends changes in policies and procedures. It assembles and collates departmental estimates for submission by the Deputy Minister and secures technical supporting data required during estimate presentation.

Foreign Agricultural Relations Office

Liaison is provided here in connection with the technical assistance programs operated by the United Nations and its specialized agencies, particularly the Food and Agriculture Organization, and by the Colombo Plan. This office also represents, in Canada, the Executive Council of the Commonwealth Agricultural Bureaux. Certain aspects of general agricultural relations with foreign governments, including attendance of departmental officers at international conferences and the arranging of itineraries for scientists and representatives of other countries visiting Canada, are centralized here.

Office Services

This office is responsible for file registry, mail, and messenger services. It interprets regulations pertaining to office services and recommends changes in policy or procedures. It is responsible for provision of telecommunication facilities, a travel warrant and reservation service, and operates a machine tabulation section for maintaining records of motor vehicles, livestock performance, personnel, and other statistics.

Organization and Personnel Office

Responsible for personnel management for all classes of employees, this office interprets regulations pertaining to personnel administration, recommends changes in policy or practices, organization and classification, provides liaison between the Department and other agencies and employee organization in personnel matters, and assembles and processes personnel estimates. It conducts promotion competitions, provides an advisory service on staff relations, methods and procedures, and organization and classification.

Procurement Office

This office orders centrally, for the Department, stationery and supplies, machines and equipment, furniture and furnishings, books, magazines, and periodicals. It interprets regulations pertaining to procurement and recommends changes in policy or procedure.

Property, Buildings, and Equipment Office

This office is responsible for property, buildings, and equipment management practices. It interprets policy, rules and regulations regarding property and equipment, establishes standard methods and procedures for property administration, equipment maintenance, and inventory preparation. It directs the disposal of surplus equipment, allocates office space, and provides liaison with the Department of Public Works regarding construction and maintenance of buildings.

Race Track Betting Supervision Office

Pari-mutuel betting at race tracks is supervised here, and regulations to ensure that provisions of the Criminal Code are met are framed and enforced. The office audits calculations of all the pari-mutuel pools and the distribution of the winning moneys to the bettors, collects all underpayments to the bettors, and compiles race track statistics.

INFORMATION SERVICE

From the Department's experimental farms, laboratories, regional and district offices and other sources comes a steady flow of information of value and interest to producers, distributors and users of agricultural products. Information Service directs the flow to the people who can use it.

One Division of the Service supplies information in the form of regular releases to daily and weekly newspapers, farm publications, radio stations, and television outlets. It likewise prepares and distributes motion pictures, photographs and slides while another important activity is the designing and construction of informational and educational exhibits and displays for regional and national fairs.

A second division deals directly with the public in answering requests for information. Here the publications of the department are edited and produced. Bulletins, reports and pamphlets are distributed in response to requests from the public and from extension workers and educational institutions.

A third division operates a large and comprehensive library system devoted to agriculture and its related sciences. Library services are made available to the research workers of the department throughout Canada and cooperation with other libraries extends the scope of the service to workers at other institutions.

AGRICULTURAL PRICES SUPPORT BOARD

This Board administers the Agricultural Prices Support Act which provides for assistance in the orderly adjustment of supply-demand relationships in marketing agricultural products.

The Board can recommend assistance or support by either of two methods, in accordance with the Act. They are (1) outright purchase, or (2) underwriting the market through guarantees.

EXPERIMENTAL FARMS SERVICE

The Experimental Farms Service, with headquarters at Ottawa, and branch farms, substations and laboratories in important agricultural districts throughout Canada, provides a broad program of experimental work in a wide field of agricultural problems. The Service is organized under the office of the Director with nine research Divisions: Animal Husbandry; Apiculture; Cereal Crops; Field Husbandry, Soils and Agricultural Engineering; Forage Crops; Horticulture; Illustration Stations; Poultry; and Tobacco. Each Division, in addition to carrying on research at Ottawa, co-ordinates the work in its particular field on the branch farms and subsidiary units.

Branch units of the Experimental Farms Service comprise 32 experimental farms, 20 experimental substations, two forest nursery stations and 233 Illustration Stations. Most of the branch experimental farms, each under a Superintendent, specialize in work related to the type of agriculture practised in their districts and experimental projects are undertaken in areas where the results will have direct application. On the experimental substations, most of which are operated under the supervision of a division or branch farm, the work is generally more limited. The primary purpose of the two forest nursery stations is to provide tree planting stock for use on prairie farms.

Illustration Stations are essentially outposts of branch farms, operating under contract on private farms with experimental projects of local adaptation. For all branch units the services of trained specialists at headquarters are available. This type of organization combines the advantage of centralized research with those deriving from wide contact and co-operation with farmers and other agricultural agencies. On the Central Farm at Ottawa, and on some of the branch farms and substations, laboratories dealing with special research projects are in operation.

Canada's experimental farms system was established in 1886. Introduced by the Hon. (later Sir) John Carling, Minister of Agriculture, "An Act Respecting Experimental Farm Stations" authorized the establishment of five experimental farms, this number being increased in later years. Dr. William Saunders, who had taken a leading part in the preliminary investigations was appointed first Director and held this office until 1911. Subsequent Directors were Dr. J. H. Grisdale (1911-1919); Dr. E. S. Archibald (1919-1950); Dr. E. S. Hopkins (1950-1955); and Dr. C. H. Goulden, the present Director.

The nature of the work conducted by the Experimental Farms Service is described under divisional headings in the following paragraphs.

Office of the Director

Matters relating to the administration, accounting, personnel, publications, and construction, as well as the overall supervision of research in all units of the Service, are dealt with in the Office of the Director at Ottawa. A General Services Division, attached to this office, supervises maintenance and other activities on the Central Farm which are not assigned to individual research divisions. Matters relating to agriculture in northern Canada are supervised by an Officer in Charge, Northern Agriculture.

Animal Husbandry Division

Investigations are conducted with beef cattle, dairy cattle, sheep, swine, and fur-bearing animals. Research activities deal with problems of animal breeding, nutrition, physiology, housing and management, pasture utilization, and dairy processing.

Animal breeding research is directed at the study of methods of selection and performance testing for various classes of stock. In dairy cattle special attention is being given to artificial insemination as a means of breed improvement. New breeds of sheep and swine are being developed.

Nutritional studies deal primarily with the nutritional requirements of these classes of stock and the development of more efficient rations. Special attention is being given to methods of maximizing utilization of forage as grass and grass silage.

Studies on the physiology of reproduction are in progress.

Apiculture Division

Research is conducted on problems concerned with honey processing, pollination, hybrid stock testing and breeding, disease control and colony management.

The use of honeybees for pollination of the clovers, alfalfa, sunflowers, blueberries and cucumbers is investigated in co-operation with other Divisions. The foraging behavior of honeybees in effecting cross-pollination is also studied in conjunction with this problem.

The Division investigates methods of control of the important diseases of bees. Both cultural and chemical methods of control are studied in co-operation with other Divisions.

Management problems associated with the over-wintering of colonies and the removal of queens in package colonies receive attention.

Cereal Crops Division

The Cereal Crops Division is organized as a plant breeding institution with headquarters at the Central Experimental Farm, Ottawa. The Ottawa laboratory and the Experimental Farm at Charlottetown serve as breeding centers for Eastern Canada. Western Canada is served by the Cereal Breeding Laboratory at Winnipeg, Manitoba, and the cereal breeding section of the Experimental Farm at Lethbridge, Alta. The two laboratories in the West are concerned primarily with problems in their respective areas.

The work at Ottawa is organized into six sections: spring wheat and peas, winter wheat and wheat quality, oats, barley, oilseed crops, field beans and buckwheat, cytology and genetics. Services under general administration are secretarial and clerical, records and statistics, instrument shop, photographic unit.

The activities of the Division embrace breeding high-yielding, disease-resistant varieties of wheat, oats, barley, rye, beans, buckwheat, peas and oil-producing crops. This involves research in plant-breeding methods, introduction and study of new materials for plant breeding, research in cytology and genetics with particular reference to application in plant breeding and research in the physiological reaction of cereal varieties.

Special attention is paid to developing equipment for cereal research and in this work the instrument shop plays an important part.

Field Husbandry, Soils and Agricultural Engineering Division

This work is in five general sections. Agricultural engineering investigations include studies of the efficiency of various types of tillage and harvesting machines, and experimental projects on irrigation, drainage, building design and ventilation, and farm power.

Field husbandry experiments include extensive studies of weed control, harvesting methods for hay, silage and grain, growing and processing fiber flax, and crop sequence and rotation systems.

In the soil fertility and soil management section are included investigations related to rates, dates and methods of applying manure and commercial fertilizer for various field crops on different soil types, the use of green manures, soil tillage, and the control of wind and water erosion. A soil research laboratory is maintained at Swift Current, Sask., to investigate soil moisture and erosion problems as well as other phases of soil management and crop growth.

Soil surveys are conducted in co-operation with each province and in the territories of northern Canada. Soils are classified according to type and productivity. Research is in progress on the nature and classification of soils, crop zonation and saline soils.

Meteorological data are recorded in co-operation with the federal meteorological service at experimental farms, illustration stations and other representative points throughout Canada. These records are correlated with various agricultural investigations such as effect of climate on the growth and development of crops, soil profile and classification studies, building construction, and ventilation and storage problems.

Forage Crops Division

The research, plant breeding and investigational program is directed towards the development of improved varieties of grasses, legumes, field roots, grain and silage corn, sugar beets and certain oil-seed crops including soybeans, sunflowers and rapeseed. The objective is the development of varieties, strains

and hybrids of superior yield and quality of forage, good seed-producing ability, suitable maturity, hardiness, disease resistance and adaptation to a wide range of soil and climatic conditions.

The work involves research into problems relating to plant breeding, forage seed production, harvesting methods and procedures, seed processing, pasture and rangeland research with problems affecting yield, quality and seasonal distribution or growth of these crops under various conditions. Range vegetation is studied in relation to carrying capacity, seasonal yields, persistence under various rates of stocking, natural curing of herbage on the ground for winter grazing and all of those factors affecting the values of natural rangelands in the stock production programs.

Methods of forage crop improvement and evaluation involve hybridization, selection, induced polyploidy, tests of combining ability, progeny tests, physiological studies under controlled conditions including the use of radio-active elements, cytological studies, chemical analyses, controlled inoculation with selected disease organisms, simulated grazing, actual grazing, and comparative tests.

Horticulture Division

This Division deals with problems encountered in the culture of fruits, vegetables, and ornamentals. It embraces the breeding of orchard and small fruits, vegetables, and ornamentals, and covers the testing and evaluation of new varieties originated by this Division and other plant breeders, and conducts field and laboratory work in nutritional studies, plant physiology, genetics, cytology and histology.

Investigations into problems in floriculture and greenhouse crops are carried on, particularly those involved in nutrition, timing and length-of-day in greenhouse flower crop production. The Division also operates a low-temperature research laboratory for the purpose of studying problems on the storage of horticultural crops, and a fruit and vegetable products laboratory to investigate the problems of processing these food crops.

Illustration Stations Division

This Division undertakes experimental work and fact-finding studies relating to agricultural production problems in areas distant from the experimental farms in each province. These experiments provide information on the nature and variability of farm problems in Canada and comprises both original investigations and corroborative studies of work done on the centrally-located experimental farms. In addition to illustration station projects, specific research undertakings are integrated with other Divisions of the Experimental Farms Service on the basis of joint or co-operative projects.

Illustration Stations are located in the major soils and climatic zones on privately-owned farms on a co-operative agreement with the owners, and the experiments are designed to determine the effect of these conditions in response to fertilizer treatment, farm organization and management, crop varieties, economics of production resulting from irrigation, contour and grass farming, weed control, as well as the efficient use of farm machinery.

The experimental work on Illustration Station farms is conducted by agronomists who are members of the technical staffs at the Experimental Farms.

Poultry Husbandry Division

Research into problems of genetics, nutrition and management of poultry is conducted. The Experimental Farms Service, with its numerous branch farms, is well adapted for genetic research. Thirteen branch farms with

relatively large bird populations are available for this purpose, providing adequate populations in widely differing environments. Inheritance of egg production and meat characteristics are the subject of long-time basic studies. Fertility and hatchability receive attention in breeding research with all species. Research along similar lines is in progress with both turkeys and geese at the Central Experimental Farm at Ottawa. Research on inheritance of egg quality has been expanded.

Nutrition studies are concentrated at Ottawa and three branch farms. Two nutrition laboratories are operating in the prairie region and one in the eastern Maritime region where problems of regional significance are of primary concern. One laboratory is concerned entirely with nutrition of turkeys. Problems related to growth, egg production, fertility, hatchability, livability and market quality represent the more important lines of nutrition research.

Factors of management are closely linked with both genetic and nutrition research and are investigated concurrently. Special attention is given to research in housing, ventilation and equipment, and management. Marketing problems as influenced by genetics, nutrition and management are also investigated.

Tobacco Division

A comprehensive program relating to tobacco production in Canada is conducted in this Division. It includes the breeding of improved varieties with emphasis on the development of disease-resistant strains. Introduced varieties are tested for suitability under local conditions. Agronomic studies embrace cultural practices, fertilization, chemical weed control, and methods of harvesting and curing. Chemical control of sucker growth of tobacco is tested as a substitute for the costly manual removal of suckers.

Physiological and chemical investigations are conducted to clarify some of the fundamental relationships involved in the production of high-quality tobacco leaf. The metabolism of the leaf during growth and the biochemical changes during curing and fermentation are studied. Physiological aspects of tobacco nutrition are investigated using pure chemicals under controlled conditions in the greenhouse to secure information not obtainable from field experiments.

The Division assists in the development of markets and maintains a statistical record of pertinent economic data. A quarterly publication, *THE LIGHTER*, contains general and statistical information on the tobacco industry in Canada.

MARKETING SERVICE

The responsibility of Marketing Service is to promote the most advantageous distribution and use of Canada's agricultural food products. The Service administers grading and inspection services covering livestock and livestock products, poultry, eggs, ranched furs, dairy products, fruit, vegetables, canned goods, maple products and honey.

Market reporting on these commodities is provided on a frequent regular basis. For the benefit of the consumer, expert information is provided on the best methods of using and storing Canadian foods with special attention to those in abundant supply. Associated with the Service is a fact-finding body in connection with the economics of marketing as well as production.

In addition, regular officers of the commodity divisions assist the Agricultural Prices Support Board in its activities.

U.K. Staff

Marketing Service staff located at London, Liverpool and Glasgow closely checks the standards and quality of Canadian produce arriving in the United Kingdom and keeps the Department informed on these matters, especially the acceptability of Canadian produce by the United Kingdom consumer.

Markets Information Section

This Section prepares and publishes daily, weekly, monthly, and annual reports on the commercial marketings of livestock, dairy products, and fruits and vegetables on the domestic and export markets. Market comment and trends are noted and statistics on quality, prices, numbers or amounts are compiled and distributed to the industry across Canada. Additional information in special form is assembled for the use of committees and boards, or to meet specific enquiries from producers or others engaged in marketing farm products.

Consumer Section

The chief function of the Consumer Section is to assist in developing the consumer market for Canada's agricultural food products. Information on buying, using and preserving foods from Canadian farms is widely disseminated among consumers. Trained experts in home economics work in "Canada's Kitchen", a culinary laboratory, to test and originate recipes, formulas and methods of preparing food for serving, canning and freezing and to test the effects of these procedures on various types of foodstuffs under various conditions.

Consumer food preferences are referred, at times, to the branch of agriculture concerned with grading and other regulations that govern the manufacture and sale of foods under the Department's jurisdiction and are brought to the attention of the public.

Transportation and Storage Section

The Transportation and Storage Section administers the Cold Storage Act and acts as a service unit on transportation and storage problems for the Commodity Divisions. In carrying out this service, cargo inspection is provided at Canadian and United Kingdom ports.

At Canadian ports markings on and appearance of containers of commodities are checked to make sure they meet the export requirements. Officers of this section place thermographs in ships carrying these commodities abroad and the reports from the thermographs (self-registering thermometers) are returned by its officers abroad, who also visit U.K. markets for information on the acceptance of or complaints about Canadian foodstuffs.

This section issues the "Cold Storage News Letter" monthly, and deals, when the need arises, with other types of storage.

Economics Division

This Division collects, analyzes and interprets economic information required in the formulation and administration of departmental policies and programs. It conducts economic surveys and other research that will lead to increased efficiency in agricultural production and marketing and improvement of farm living conditions.

Economic information is provided to the Agricultural Prices Support Board and the Prairie Farm Rehabilitation Administration. The Division assists in

administering marketing legislation and policies, represents the Department in relation to activities of various international organizations (FAO) and generally assists in any economic undertaking with which the Department is concerned.

The Division prepares for publication "The Economic Annalist", "The Current Review of Agricultural Conditions in Canada", "Agriculture Abroad", and "Spot News".

Fruit and Vegetables Division

The work of this Division is concerned mainly with administration of the Fruit, Vegetables and Honey Act; the Maple Products Industry Act, and the Processed Fruit and Vegetable Regulations under the Meat and Canned Foods Act. Under the administrative unit, three sections—Inspection, Canning, and Marketing—enforce this legislation.

Inspection—Fresh fruits and vegetables, domestic and imported, honey and maple products are inspected for grade, marking and packages at shipping points and destination, and inspection certificates are issued both as to grade and condition. Where inspectors are available, administrative inspections are made on local markets to check quality and condition.

Canning—Processed fruits and vegetables, domestic and imported, are inspected; labels approved; operations of registered establishments supervised, and a check is made of sanitary conditions and grading of the pack as to quality.

Marketing—Interprovincial and international dealers and brokers are licensed to operate in fresh fruits and vegetables. Assistance is given to growers, growers' associations and distributors in finding new markets and advising as to market conditions.

Dairy Products Division

The activities of this Division are conducted mainly under three heads. The Administrative Unit maintains supervision of all activities of the Division, and keeps in touch with developments of the dairy industry throughout the world. Markets and Merchandising Units render a variety of services to the industry in relation to marketing dairy products. A publication on dairying throughout the world is issued each month in conjunction with the Economics Division. The Grading and Inspection Services enforce requirements of the Canada Dairy Products Act and Regulations dealing with the manufacture, sale, and grading of dairy products. Dairy produce graders and inspectors of dairy products are located in all provinces at convenient points to perform the duties of grading and inspecting dairy products.

Livestock Products Division

Administration of the Livestock and Livestock Products Act and activities related to merchandising livestock products and ranched furs come under this Division.

The section dealing with livestock administers regulations of the Act concerning the grading of hog, beef, lamb, mutton and veal carcasses, wool and export bacon, as well as controlling trading on stockyards. Its stockyards and grading staffs are also responsible for assembling at central markets and packing houses information on the volume of livestock sales and prices.

The fur section administers regulations for the grading of ranched furs and takes part in activities related to the promotion and merchandising of Canadian furs.

Poultry Products Division

Separated in 1954 from the Livestock Products Division, this Division administers the Livestock and Livestock Products Act as it relates to poultry and poultry products and participates in activities relating to the inspection, grading and merchandising of poultry and poultry products. Its district officers are also responsible for the direction of the poultry staff of Production Service and administer the Act and Regulations where they concern poultry production.

The district and sub-district offices of this Division assemble information on marketing and prices of poultry products.

Consolidated Retail Store Inspection

Originating with a unit in Winnipeg in 1954, this service has been extended to Halifax and Toronto and other main centers across the country will eventually be covered. Previously, the inspection of retail stores had been carried out as time permitted by the Fruit, Dairy and Poultry Divisions but this program provides a co-ordinated and consolidated system.

The Retail Store Inspection staff inspects agricultural products offered for sale in retail stores according to the prescribed regulations for fruit, vegetables, honey, eggs, and maple, dairy and poultry products. Each inspector is trained to inspect all commodities.

PRODUCTION SERVICE

Production Service administers legislation and policies associated with the field of agricultural production. It is comprised of five Divisions—Health of Animals, Animal Pathology, Livestock and Poultry, Plant Products and Plant Protection.

The Health of Animals Division administers legislation designed to prevent the introduction and spread of contagious animal diseases and for the health and sanitary inspection of meats and meat products entering into inter-provincial or export trade. The Animal Pathology Division conducts research on animal diseases, performs laboratory diagnosis and manufactures certain biological products used in disease control programs.

The Livestock and Poultry Division administers performance-testing programs and breeding policies in various classes of livestock, and legislation with respect to the pedigree registration of purebred animals. Legislation respecting seeds, feeds, fertilizers and pesticides is administered by the Plant Products Division. The Plant Protection Division administers regulations under the Destructive Insect and Pest Act covering the export and import of plants and plant products.

Animal Pathology Division

Research and investigation are carried out by this Division into the cause and control of diseases and parasites infesting farm animals, poultry, fur-bearing animals, and wild life. It also manufactures tuberculin and other diagnostic reagents and biological products and provides analytical and diagnostic services.

Its work is carried out at the headquarters laboratory, the Animal Diseases Research Institute in Hull, Que., primarily concerned with problems of a national scope and major investigations in the field of basic research. The Division also has regional laboratories at Sackville, N.B., Macdonald College, Que., Lethbridge, Alta., and Vancouver, B.C., handling assigned research problems and performing routine diagnosis, some purely regional or local.

Health of Animals Division

Under this Division comes the administration of two Acts with a vital bearing on animals and human health and on the economy of the nation—the Animal Contagious Diseases Act and the Meat Inspection Act.

The Animal Contagious Diseases Act was designed to protect the livestock industry of Canada against destructive animal diseases of an epizootic nature. It does this in three ways: first, by preventing their introduction from foreign countries; second, by controlling or eradicating them if they do reach Canada; third, by controlling and eradicating such diseases which were established here before their true nature and adverse effects on the national economy and public health were generally recognized and before comprehensive control and eradication measures were put into operation.

The importance of this work becomes evident when it is realized that many animal diseases are transmissible to man, often with weakening, crippling, even fatal results. They include bovine tuberculosis, bovine brucellosis, anthrax, rabies, glanders, and others.

Enforcement of regulations of the Meat Inspection Act assures an adequate supply of wholesome meat and meat food products from healthy animals slaughtered in establishments operating under Departmental supervision. Besides protecting the domestic market in this manner, government supervision of these establishments and certification of their products as to wholesomeness make it possible to market surplus meats and meat food products internationally.

Livestock and Poultry Production Division

Various departmental policies and related activities concerned with the production of livestock and poultry are included in this Division's responsibilities.

Under The Livestock Pedigree Act purebred livestock is registered for 33 associations. The Department is responsible, under the Act, for seeing that constitutional changes in the associations are compatible with the Act and is empowered to prosecute breeders transgressing its provisions.

Inspectors concerned with Record of Performance (ROP) for Purebred Dairy Cattle make frequent tests of the milk and butterfat production of individual cows in the herds of breeders across the country. Records of these tests are being increasingly used as bases for official registration and the appraisal of dairy sires.

Breeders of purebred swine may take advantage of ROP and Advanced Registry for Purebred Swine. Selected litter groups of four pigs are consigned to testing stations across Canada for performance and progeny tests for basic information on the utility value of breeding stock. This program is the basis for progressive improvement in purebred swine herds.

The ROP policy for poultry is the basis for most of the progressive poultry breeding programs in Canada. Associated with it is the Hatchery Approval Policy. A central poultry testing station at Ottawa provides facilities for poultry testing under uniform environmental conditions.

The Division administers regulations covering grants to fairs and exhibitions. This involves close scrutiny of participating organizations claiming government subsidies.

Among the other activities of the Division is the bull-loaning policy under which approximately 1,400 bulls owned by the Department are loaned to associations to demonstrate the value of purebred sires. This assistance is limited to six years. Several artificial insemination units are assisted by the loan of departmental dairy and beef bulls.

There are also policies designed to assist the horse industry through premiums on classified purebred stallions based on the number of mares in-foal; assistance to owners of thoroughbred stallions for the production of hunter and saddle types and to owners of purebred mares of the draft breeds.

The sheep industry is assisted through aid in the purchase of purebred rams, classification of purebred rams and the Approved Flock Policy. Field men carry out demonstrations in approved methods of sheep husbandry.

In some field work there is joint participation and support by provincial departments, particularly applied to 4-H Clubs, inspections of stallions, boars, etc., 4-H Club judging, sheep husbandry field days, swine progeny shows, swine carcass shows and similar activities.

Plant Products Division

The work of this Division includes administering Acts respecting seeds, feeding stuffs, fertilizers, pest control products, hay and straw, flax fiber and binder twine; administering the Freight Assistance Policy on the movement of feed grains east and west from the Prairies and policies on distribution and the financial support of provincial agricultural lime production. The Division also promotes seed production in co-operation with the provinces, the Canadian Seed Growers' Association and other agencies.

Seeds, feeding stuffs, fertilizers and pest control products must be sold under prescribed standards or grades or specific chemical or potency guarantees. Registration with the Department (in seeds, the determination of the grade) must precede sales. The Act respecting hay and straw provides grading service although sales by grade are optional. Official grading is required of all flax fiber shipped between provinces, or exported. Binder twine must be labelled with the dealer's names and number of feet per pound in the ball.

Administration of these Acts and policies requires a headquarters staff with commodity or project specialists, a field inspection staff covering all aspects of inspection and promotion work, and supporting seed, chemical, microscopical, vitamin and pesticide testing laboratories.

Promotional activities are mainly concerned with production and use of desirable varieties of crop seeds. Information on seed production is collected and published in form of forecasts and reports.

Plant Protection Division

This Division is responsible for enforcement of regulations under the Destructive Insect and Pest Act in respect to import and export shipments of plants and plant products; certification, after inspection in the field, in storage, and at shipping points, of potatoes as seed potatoes; certification, after inspection in the field, in storage, and at the time of shipment, of flower bulbs produced in British Columbia and inspection of ocean vessels at seaboard and other ports prior to the loading of cargoes of grain and cereal products for export. The Division maintains domestic insect and plant disease quarantines and enforces preventive measures against the introduction of new pests. Control or eradication measures are carried out with regard to foreign pests or diseases which have become established in Canada. Flour mills, warehouses or other premises are inspected as required in order that certificates of health may be issued to meet the requirements of importing countries in respect to plants and plant products exported.

REHABILITATION SERVICES

Prairie Farm Rehabilitation Act Administration (PFRA)

The Prairie Farm Rehabilitation Act Administration is organized to carry out a program aimed at greater security and stability for prairie agriculture. The Act, passed in 1935, provided for the rehabilitation of drought-stricken and soil-drifted areas in the Prairie Provinces. The original Act covered only a five-year period; time limitations were removed later.

With headquarters in Regina, Sask., PFRA is headed by a Director and has four main branches—Administration, Water Development, Engineering and Community Pastures. An administration liaison office in Ottawa is headed by an Associate Director; regional offices are in Winnipeg, Man., and Kamloops, B.C. District offices, project offices and a varying number of field offices are in various locations in the four western provinces and a large service depot and workshop are in Moose Jaw, Sask.

Wherever possible, fullest co-operation is given to provincial government departments concerned with allied programs and legislation.

Besides the more obvious PFRA functions and activities, special undertakings are administered such as major irrigation works and reclamation projects, some financed entirely by Canada, others jointly under agreements between Canada and the provinces concerned. These include the Bow River Irrigation Project southeast of Calgary, St. Mary's River Project near Lethbridge, the proposed South Saskatchewan River Project northwest of Moose Jaw and the Buffalo Pound Reservoir, 20 miles north of Moose Jaw.

Prairie Farm Assistance Act Administration (PFAA)

The Prairie Farm Assistance Act was passed in 1939 to provide financial aid to farmers in crop failure districts in the spring wheat area. The responsibility for providing this assistance rests with the province or municipality and it is intended that payments made under this Act will relieve them of a large part of the costs of such assistance.

Part of the funds required comes from a levy of one per cent deducted from the price of all grain marketed through regular channels.

PFAA is administered through a head office at Regina and a sub-office at Edmonton, plus full-time field supervisors covering the three Prairie Provinces and the Peace River District of British Columbia.

Rural municipalities and Local Improvement Districts inform the Administration by September 15 each year of townships with estimated yields per acre of wheat of eight bushels or less. Part-time fieldmen then are employed to take individual Cultivated Acreage Reports from each farmer, setting out the crop acreage and amount of grain harvested. It is on these reports that the payments to each farmer are based.

Maritime Marshland Rehabilitation Act Administration (MMRA)

Canada has undertaken to protect and rehabilitate tidal marshlands in Nova Scotia, New Brunswick and Prince Edward Island in co-operation with those provinces. The principal function of MMRA is to carry out Canada's responsibilities by constructing dykes, aboiteaux (tide gates) and breakwaters to prevent tidal flooding of valuable agricultural lands.

MMRA headquarters is at Amherst, N.S., with offices in Albert and Moncton, N.B., and Windsor, N.S. MMRA has administration and accounting, surveys and drafting, workshop and construction branches.

SCIENCE SERVICE

Science Service includes the Divisions of Administration, Bacteriology, Botany and Plant Pathology, Chemistry, Entomology and Forest Biology.

The Service deals with problems relating to insect pests and diseases affecting crop plants, trees and animals, the deterioration of plant, tree and animal products through invasion of micro-organisms, the nutritional requirements of animals and plants, and the chemistry and microbiology of soils and dairy products. The work is carried on at the Ottawa headquarters laboratories and at national, regional and field laboratories throughout the country. Activities of Science Service are co-ordinated with those of other services of the department as well as with work of the National Research Council, universities and agricultural colleges.

Administration Division

The Administration Division attends to the business management of the Service. It assumes responsibility for the design and construction of buildings and for the local administration of large laboratories in which the work of more than one division is concentrated. The division includes in addition, an art and photography unit and a statistical research and service unit.

Bacteriology Division

This Division conducts research in dairying, food and soil microbiology and general agricultural bacteriology. Major attention is given to the improvement of quality in milk, butter and cheese, problems of food preservation, and fundamental studies on soil micro-organisms in connection with soil fertility and soil-borne plant diseases. The activities also involve research on the more basic aspects of microbial physiology, cytology and genetics conducted on micro-organisms of agricultural importance.

Direct services include the bacteriological analysis of samples submitted by other divisions and the preparation of seed inoculants for departmental projects. Control work involves the determination of quality of products within the scope of Acts and Regulations administered by the Department.

Botany and Plant Pathology Division

The activities of this Division cover two main phases, Economic and General Botany, and Plant Pathology and Mycology.

The work in plant pathology includes research, experimental and administrative activities in connection with diseases affecting agricultural and horticultural crops. Investigations relate to the nature and cause of the various diseases, their effects on the plants attacked and methods for their control including co-operation with plant breeders in the production of disease-resistant varieties. Intimately related to the plant pathological work are the mycological investigations, the plant disease survey, and the maintenance of the National Mycological Herbarium. Special emphasis is placed on diseases of major economic importance.

The botanical work is concerned with the maintenance and development of the Arboretum and Botanic Garden, the development of a plant introduction service through a world-wide seed exchange, investigations on the taxonomy and floristics of native and introduced plants (including the maintenance of a large herbarium), the identification of plants for specialists and the general public, investigations on the distribution and life-histories of Canadian weeds and poisonous plants (through the Canadian Weed Survey), studies in cytogenetics and research in plant physiology with special reference to growth studies under controlled environment conditions including studies on photoperiodism and vernalization.

Chemistry Division

The Chemistry Division conducts research studies involving the application of chemistry to animal, plant and soil science. Major fields of work deal with the nutrition and metabolism of the larger domestic animals, vitamin and physiological research using small experimental animals, the mineral requirements of plants, pesticides, and fundamental studies on soil mineralogy and organic matter.

It provides a chemical consulting and analytical service for investigations and research of primary concern to other divisions of the Department. Advisory services are maintained for those interested in the industrial utilization of agricultural products; and the division assists the Department in administering several federal Acts involving chemical and biological analysis.

Entomology Division

This Division is responsible for the research and administration of agricultural and all other entomology except the control of forest insect pests, (see Forest Biology Division). The activities of the Division have for their object the protection of man and the products of agriculture, industry, and commerce against loss through insect damage, and the development and maintenance of the Canadian National Collection of insects. These activities involve study of the life-histories, habits, physiology, and classification of the various insect pests, invention of and improvement in methods of control, and dissemination of relevant information. The work includes surveys of the abundance of injurious insects and general estimates of commercial losses, forecasting of outbreaks, salvage of damaged materials, and provision of advice to individuals, organizations and government agencies in the suppression of insect outbreaks and the organization of control campaigns. Investigations of the control of injurious pests include the use of fumigants, dusts, and sprays, and methods of application; use of parasites and diseases of injurious insects and development of special management practices.

The Division co-operates in the administration of the Destructive Insect and Pest Act and the Pest Control Products Act.

Forest Biology Division

This Division includes the Units of Forest Zoology and Forest Pathology. It is responsible for investigations on insects, fungus diseases and other factors affecting forest and shade tree and forest products. The Division works in close co-operation with federal and provincial forest services and with the lumber and paper industries.

The activities of the Unit of Forest Zoology include studies on noxious forest insects and the development of preventive or control methods by forest management, chemicals, and by the employment of parasites and disease organisms.

The Unit of Forest Pathology studies the nature and causes of disease in forest and ornamental trees to determine methods of prevention which can be applied through forest management.

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